



Tools for the Way People Learn



Authoring Software for Interactive Multimedia

Interactive Multimedia on the Apple™ Macintosh™ finally delivers on the precept that the value computers offer education lies not so much in their ability to act as reservoirs of knowledge, but rather in their ability to provide students with the resources and motivation to seek that knowledge.

It's clear that interactive multimedia can appeal to your students' emotional and intellectual passion for learning by making it a more stimulating and interactive experience. Still, many educators believe that developing high quality multimedia materials is just too difficult, time consuming and expensive to justify the effort.

A year ago it might have been, but as a company that prides itself in bringing the power of personal computing to the individual, Apple understands these difficulties. That's why, along with some very innovative software developers, we've been working hard to do something about it.

The result; a new generation of authoring software written for the Apple Macintosh personal computer and designed specifically for people who know nothing about programming - but who know a great deal about teaching. With the help of the Apple Macintosh authoring tools listed here, developing your own interactive multimedia learning materials now takes a surprisingly short time, few people, and little if any programming skill.

Authorware™ Professional™ and Authorware Academic™

Authorware provides all you need for creating interactive multimedia learning experiences. It includes facilities for handling text, graphics, animation and interactivity, and offers facilities for virtually unlimited branching to other areas depending on student response.

Students can respond to questions by typing, selecting a menu, clicking on display areas, pressing a specified key, or by simply letting time run out. You can design simulations with data driven animations that can have a variety of outcomes depending on the actions a student takes. There are more than 100 variables that automatically keep track of what learners do, making it easy for you to perfect

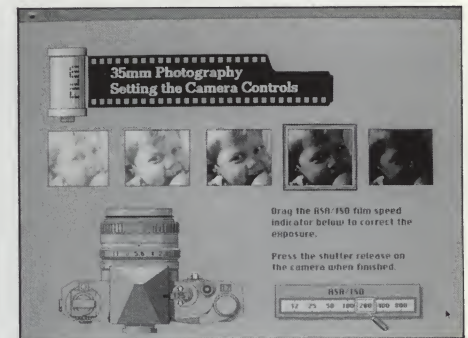
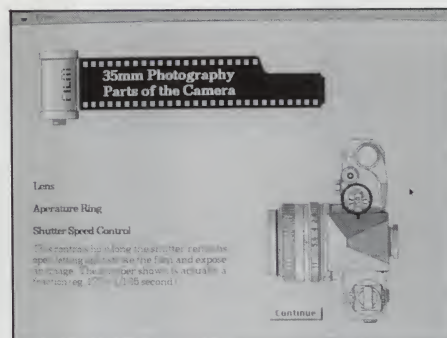
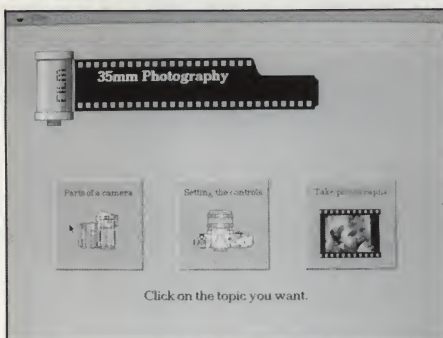
your learning materials.

By integrating both authoring and student modes, Authorware allows you to review your course at any point during the creation process, so you can see how it will look to your students. You can change text, graphics, and sound, and your revisions will automatically be stored in place for the next time you run your course.

The real-time animation capability allows you to control the speed, size, and direction of animated sequences with variables. For example, you could have a bird flap its wings when commanded by a student, or an engine that speeds up when the throttle is moved.

With Authorware, you can quickly create a rough sketch of your course and begin experimenting with alternative ideas immediately. Instead of forcing you to plan on paper, it frees you to experiment dynamically on-screen.

Authorware Academic incorporates all of these features using black and white graphics and animations, while Authorware Professional provides additional capabilities such as full colour, sound digitising and editing, and libraries of models, animations, graphics, sounds and utilities, as well as video control.



Authorware Professional and Authorware Academic provide a powerful icon-based development environment which makes it straightforward to create sophisticated and flexible learning materials which can include realistic simulations and interactive dialogues.

HyperCard™

HyperCard, included as an integral part of every Apple Macintosh personal computer, lets you organise information on your computer just as you do in your mind - nonsequentially, and by association and context as well as hierarchy. The software lets you merge different media - text, graphics, pictures, animation, sound, and video - and create a wide range of applications.

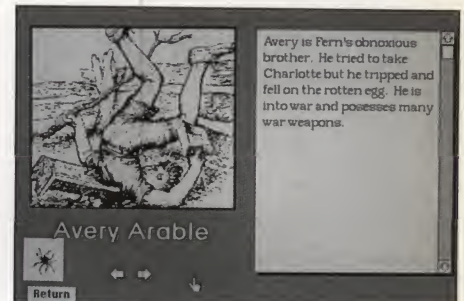
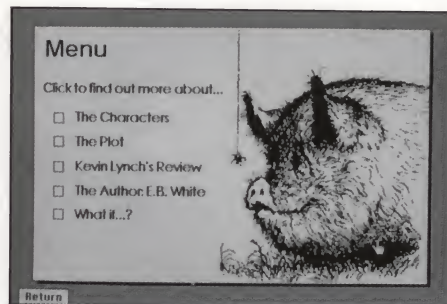
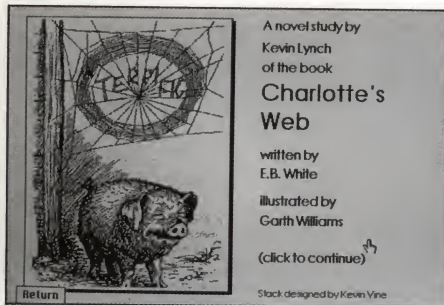
In HyperCard, information is presented on cards which are held together in stacks. You

simply link one card to another - or one idea or piece of information - by creating buttons. You can create a series of buttons to play sounds, drive animation sequences, perform calculations, or launch other programmes.

Many applications can be created by just pointing and clicking, creating buttons and linkages. However, HyperCard's English-like scripting language, HyperTalk™, allows you to do more complex functions and you can even incorporate routines from other programming

languages. While HyperCard has no specific branching or tracking capabilities, they can be written in HyperTalk.

HyperCard can also serve as a front end to other applications in order, for example, to play an animation sequence or access a database. HyperCard drivers are available to control both videodiscs and CD-Audio discs, making it easy to incorporate slides, video, and CD quality sound into HyperCard applications.



HyperCard is a versatile tool for organising and linking information of all types, including text, graphics, sounds, animations and video. Every Apple Macintosh system comes with HyperCard, and in conjunction with one of the toolkits available, can be used to turn videodiscs and CD-audio discs into interactive learning resources.

SuperCard™

SuperCard is HyperCard™ compatible software that allows you to create complete, fully functional applications with menus, multiple windows, colour, and high resolution printing. You can start by using existing HyperCard stacks, or create your own applications from scratch using SuperCard's scripting language. This is very similar to HyperTalk found in HyperCard, but also includes additional commands and extensions, as well as an on-

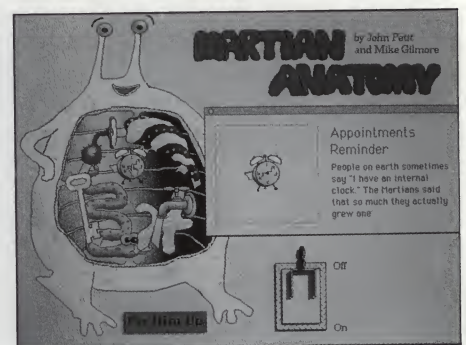
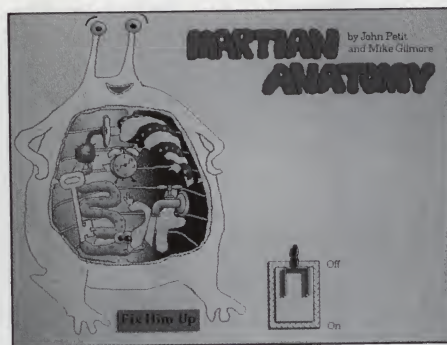
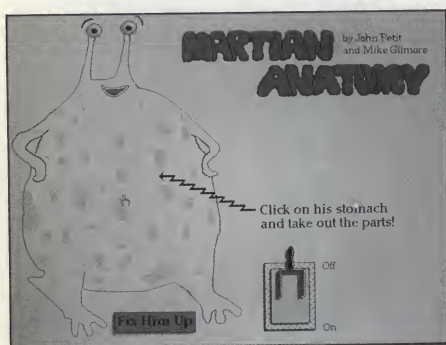
line reference facility.

SuperCard graphics are considered objects and each object can have a script and can be made into buttons. You can create sophisticated colour graphics as well as trace multiple objects to create complex button shapes. Menus can be easily customised and appropriate dialogue boxes created.

SuperEdit™, included with SuperCard, gives you an insider's view of your application - all

the cards, windows, menus, scripts, sounds, icons, etc. With SuperEdit, you can change card order, swap backgrounds between cards, or work with multiple scripts.

Standalone applications can be created with SuperCard and distributed without a license fee, allowing other Apple Macintosh owners to use your learning materials without having their own copy of SuperCard.



SuperCard offers a very powerful development environment which is ideal for creating interactive learning applications. Compatible with HyperCard and with a similar scripting language, it offers advanced capabilities such as custom menus, multiple windows and colour graphics.

MacroMind Director™

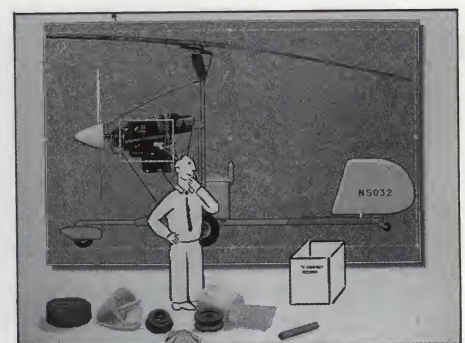
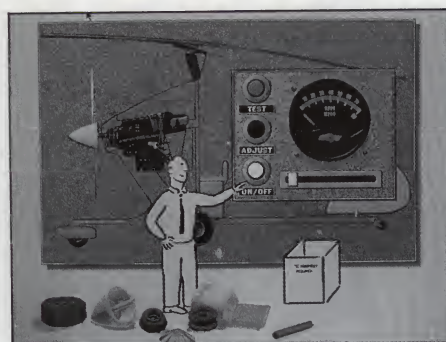
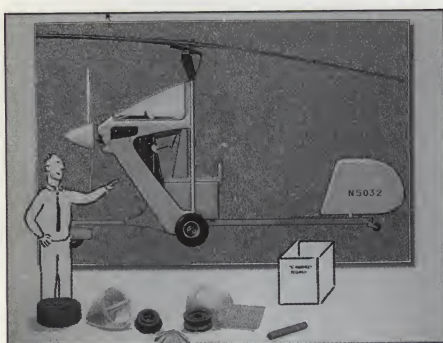
MacroMind Director is optimised for multimedia applications requiring sophisticated graphics and animations. It is based on VideoWorks II, and in addition to over 100 new features, MacroMind Director includes a rich art library, a versatile painting programme and a powerful animation capability.

To produce animations the programme uses the language of theatre arts - a stage, a cast of characters and a cast window - all of

which makes it easier for the novice to understand what's involved in developing animations.

'Auto Animate' and 'In Between Special' features allow you to quickly build animations from a number of still graphics images from Director or other Apple Macintosh graphics programmes. The path of an animation or its speed can easily be alerted using menu options.

MacroMind Director Interactive™, an enhanced version of the programme, has an built in scripting language called Lingo™. This allows elements of a sequence to become buttons, which enables the student to interact with and control the application.



MacroMind Director makes it easy to create dynamic animation sequences with colourful graphics and multiple sound tracks. It includes a rich sound and art library to make it easy to get started. Graphics and sounds can also be incorporated from a wide variety of other Apple Macintosh applications.

It's Easier Than You Think

CourseBuilder™

CourseBuilder allows you to focus on the content and creative development of your learning materials rather than on programming issues. The software provides a graphics-based authoring facility that eliminates the need for storyboards and outlines - you simply design your course graphically on the screen using icons to represent content blocks. You can experiment and edit by rearranging content blocks, and draw on a wealth of text, graphics, animation, sound, branching, and tracking

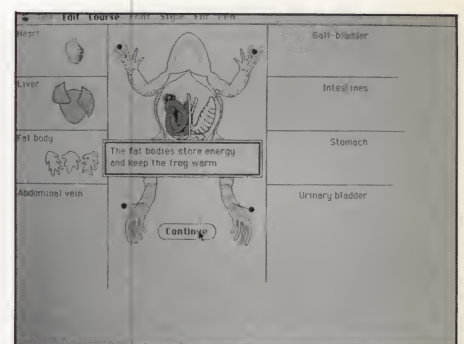
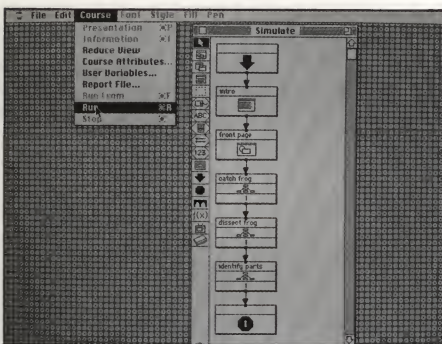
capabilities to illustrate interactive learning materials.

Students can respond to questions by typing, selecting menus or buttons, clicking a region, or by dragging an object. Arrows between icons carry the conditions that lead students down a particular path in response to their answers. Creating animations and defining and manipulating variables that lead to simulations is straightforward.

The software allows you to run the course

at any time to see how it will appear to students. If you want to make changes, you simply stop where you are and access the authoring mode.

CourseBuilder runs in black and white on an Apple Macintosh Plus, SE or SE/30 or in colour on any Apple Macintosh II computer, with a colour monitor. VideoBuilder, an optional accessory to CourseBuilder, includes drivers for a videodisc player, a videotape recorder, and a slide projector.



CourseBuilder allows the creation of a graphical storyboard on screen which can be turned directly into interactive learning materials incorporating multiple media such as text, graphics, animations and sound as well as branching and reporting capabilities, to create compelling learning experiences.

Guide™

Guide provides an elegant means to help students navigate through large bodies of information by exploring and associating one piece of information with another. The software lets you create hypertext documents. Hypertext documents are read non-sequentially - associating related pieces of information - rather than in the traditional linear manner.

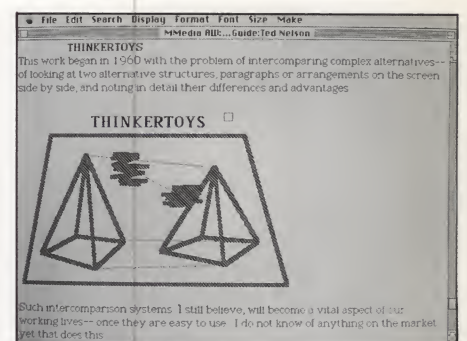
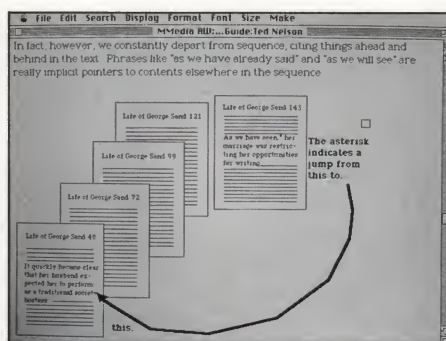
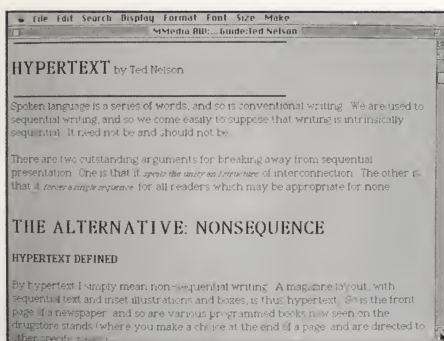
With Guide, you can develop learning and reference materials that are multi-levelled, cross-referenced, and annotated in a way that's

simple, yet impossible to achieve via printed media. You can create 'buttons' and 'hot spots' within a document that let pupils and students move to related information or move down different paths depending upon their interest or response to different questions.

It's even possible to create elaborate branching structures by embedding buttons within buttons. Editing functions support this feature by allowing you to cut and copy entire sections of text, complete with buttons and

their corresponding functions. You can also review the last 32 button presses by selecting the 'Backtrack' button.

Included in Guide are facilities for creating simple graphics. More complex graphics can be imported from other painting or drawing programmes. Guide comes with drivers for both videodisc players and CD-ROM drives. Text passages can be linked to colour graphics on any Apple Macintosh II computer.



With Guide, multilevelled, cross referenced Hypertext systems can be created which allow large bodies of textual and graphical information to be navigated through in an intuitive, non-linear way. Buttons can be embedded within a document which allow the user to branch directly to related information or move to areas of particular interest.

Find Out More About Interactive Multimedia

There are more than 180 Apple Authorised Dealers around the country who will be happy to give you full details of our approach to interactive multimedia. Your local dealer can arrange for you to see demonstrations of interactive multimedia applications available today and show you the products available to help you create your own.

Apple Computer has published an "Apple Guide to Multimedia Development Tools", this provides details of both software and hardware products available to assist you in the preparation and delivery of interactive multimedia materials.

All of our Dealers have had to reach the highest standard of competence before being awarded the authorised classification.

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